STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 179799

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Search Notes

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L19  ANSWER 1 OF 4  HCAPLUS  COPYRIGHT 2006 ACS on STN
AN   2006:103807  HCAPLUS
DN   144:146025
ED   Entered STN:  03 Feb 2006
TI   Method for purifying virus envelope by column chromatography
IN   Ioka, Shinichi
PA   Genomidea, Inc., Japan
SO   PCT Int. Appl., 37 pp.
     CODEN: PIXXD2
DT   Patent
LA   Japanese
IC   ICM  C07K-0001/20
     ICS  C07K-0014/115; C12N-0007/02
CC   9-3 (Biochemical Methods)
     Section cross-reference(s): 10
FAN.CNT 1
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   WO2006011580          A1    20060202    2005WO-JP13893          20050722
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
             NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
             SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
             ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
PRAI 2004JP-0219381        A     20040727
CLASS
 PATENT NO.       CLASS  PATENT FAMILY CLASSIFICATION CODES
 --------------   -----  ----------------------------------------------
 WO 2006011580    ICM    C07K-0001/20
                  ICS    C07K-0014/115; C12N-0007/02
                  IPCI   C07K0001-20 [ICM,7]; C07K0014-115 [ICS,7]; C12N0007-02
                         [ICS,7]
```

AB A method is provided for industrially purifying the envelope of virus (e.g., Sendai virus (Hemagglutinating Virus of Japan, HVJ)). More specifically, it is intended to provide a method for purifying an inactivated virus envelope by the combined use of ion exchange chromatog. with hydrophobic chromatog. to thereby purify the envelope at a high yield while sustaining the cell fusion activity of the virus. The virus envelope thus purified is usable as a vector for transferring a biopolymer such as a gene into cells or a living body. This method is also applicable to the purification of an attenuated envelope virus.

ST virus envelope purifn ion exchange chromatog hydrophobic

IT Alcohols, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(aliphatic, lower; method for purifying virus envelope by column chromatog.)

IT Cations
(divalent; method for purifying virus envelope by column chromatog.)

IT Virion structure
(envelope, attenuated, inactivated; method for purifying virus envelope by column chromatog.)

IT Virion structure
(envelope; method for purifying virus envelope by column chromatog.)

IT Immunoassay
(hemagglutination test; method for purifying virus envelope by column chromatog.)

IT Adsorption
Anion exchange chromatography
Arenavirus
Buffers
Bunyavirus
Classical swine fever virus
Coronavirus
Cowpox virus
Crimean-Congo hemorrhagic fever virus
Deltavirus
Dengue virus
Ebola virus
Feline immunodeficiency virus
Filovirus
Flavivirus
Fusion, biological
Genetic vectors
Hepadnaviridae
Hepatitis B virus
Hepatitis C virus
Hepatitis delta virus
Herpesviridae
Human
Human T-lymphotropic virus 1
Human herpesvirus
Human herpesvirus 4
Human immunodeficiency virus
Hydrophobic interaction chromatography
Influenza virus
Ion exchange chromatography
Japanese encephalitis virus
Lassa virus
Measles virus
Mumps virus
Orthomyxovirus
Paramyxovirus
Phenyl group
Poxviridae
Purification
Rabies virus
Reoviridae
Respiratory syncytial virus

Retroviridae
Rubella virus
Russian spring summer encephalitis virus
SARS coronavirus
Sendai virus
Size-exclusion chromatography
Surfactants
Temperature
Togaviridae
Variola virus
Vesicular stomatitis virus
Virus
West Nile virus
Yellow fever virus
pH
(method for purifying virus envelope by column chromatog.)

IT Biopolymers
Gene
RL: BCP (Biochemical process); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(method for purifying virus envelope by column chromatog.)

IT Functional groups
(oligoethyleneglycol; method for purifying virus envelope by column chromatog.)

IT Solvents
(organic, hydrophilic; method for purifying virus envelope by column chromatog.)

IT Alcohols, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyhydric; method for purifying virus envelope by column chromatog.)

IT Anion exchange chromatography
(weakly basic, diethylaminopropyl (DEAP); method for purifying virus envelope by column chromatog.)

IT **9001-67-6, Neuraminidase**
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(method for purifying virus envelope by column chromatog.)

IT 107-21-1, Ethyleneglycol, uses 7439-95-4, Magnesium, uses 7440-70-2, Calcium, uses 7447-40-7, Potassium chloride, uses 7647-14-5, Sodium chloride, uses 7757-82-6, Sodium sulfate, uses 7783-20-2, Ammonium sulfate, uses 9002-93-1, Triton X-100 9005-65-6, Tween 80 9012-36-6, Sepharose
RL: TEM (Technical or engineered material use); USES (Uses)
(method for purifying virus envelope by column chromatog.)

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Alain, J; Protein Expression and Purification 1995, V6, P91
(2) Anges Mg Inc; EP---1420065 A1 2003 HCAPLUS
(3) Anges Mg Inc; AU2002318581 A1 2003
(4) Anges Mg Inc; WO2003014338 A1 2003
(5) Anges Mg Inc; JP2003519468 X 2003
(6) Anges Mg Inc; US2004253272 A1 2003 HCAPLUS
(7) Avant Immunotherapeutics Inc; AU---9896956 A 1999 HCAPLUS
(8) Avant Immunotherapeutics Inc; WO---9919345 A1 1999 HCAPLUS
(9) Chiron Corp; JP-05-505616 A 1993
(10) Chiron Corp; EP----519001 A1 1993 HCAPLUS
(11) Chiron Corp; DE--69132795 E 1993
(12) Chiron Corp; IE-----83584 B 1993
(13) Chiron Corp; WO---9113906 A 1993 HCAPLUS
(14) Chiron Corp; PT-----96994 A 1993
(15) Marcus, S; Virology 1978, V86(2), P398 HCAPLUS
(16) Teramoto, Y; Journal of Virology 1979, V31(2), P334 HCAPLUS
(17) Welling, G; J Chromatogr 1984, V297, P101 HCAPLUS
(18) Yamanouchi Pharm Co Ltd; JP-03-505322 X 1991
(19) Yamanouchi Pharm Co Ltd; WO---9113976 A 1991 HCAPLUS

L19 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:394045 HCAPLUS
DN 142:426441
ED Entered STN: 09 May 2005
TI Enzyme activities and pH tests for the determination of the risk of obstetric and gynecologic complications in samples of body fluids of women
IN **Cauci, Sabina**
PA **Unibio** S.R.L., Italy
SO Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G01N-0033/569
ICS G01N-0033/50; C12Q-0001/34; C12Q-0001/37; G01N-0033/48
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 14
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP---1528396	A1	20050504	2004EP-0022918	20040927 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
US2005095660	A1	20050505	2003US-0698795	20031031 <--
CA---2485854	AA	20050430	2004CA-2485854	20041025 <--
PRAI 2003US-0698795	A	20031031 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1528396	ICM	G01N-0033/569
	ICS	G01N-0033/50; C12Q-0001/34; C12Q-0001/37; G01N-0033/48
	IPCI	G01N0033-569 [ICM,7]; G01N0033-50 [ICS,7]; C12Q0001-34 [ICS,7]; C12Q0001-37 [ICS,7]; G01N0033-48 [ICS,7]
	IPCR	C12Q0001-34 [I,A]; C12Q0001-34 [I,C]; C12Q0001-37 [I,A]; C12Q0001-37 [I,C]; G01N0033-68 [I,A]; G01N0033-68 [I,C]
	ECLA	C12Q001/34; C12Q001/37; G01N033/68V <--
US2005095660	IPCI	C12Q0001-34 [ICM,7]
	IPCR	C12Q0001-34 [I,A]; C12Q0001-34 [I,C]; C12Q0001-37 [I,A]; C12Q0001-37 [I,C]; G01N0033-68 [I,A]; G01N0033-68 [I,C]
	NCL	435/018.000
	ECLA	C12Q001/34; C12Q001/37; G01N033/68V <--
CA---2485854	IPCI	C12Q0001-37 [ICM,7]; C12Q0001-34 [ICS,7]; G01N0033-52 [ICS,7]; G06F0017-60 [ICS,7]; G01N0033-84 [ICS,7]
	IPCR	C12Q0001-34 [I,A]; C12Q0001-34 [I,C]; C12Q0001-37 [I,A]; C12Q0001-37 [I,C]; G01N0033-68 [I,A]; G01N0033-68 [I,C]
	ECLA	C12Q001/34; C12Q001/37; G01N033/68V <--

AB The current invention describes a method for selecting a particular population of women having a risk of developing obstetric or gynecol. pathologies indicated as odds ratio (OR) value higher than 5.5, comprising the following steps in order: (a) determination of the levels of **sialidase** by means of the procedure described in Cauci et al. Am J Obstet Gynecol. 1998; 178; 511-5 and/or **prolidase** activity by means of the procedure described in Cauci et al. J Infect Dis 1998; 178; 1698-706 in samples of body fluid; (b) determination of the pH value of said body fluid samples; (c) selecting the samples having a **sialidase** value equal or above 5.0 nmol of methoxyphenol and/or a **prolidase** level equal or above 1500 mOD for **prolidase** and a pH ≥ 5.0. Consequently, this method gives the physician an efficient tool to decide whether or not to administer a pharmacol. therapy to women at risk of severe adverse outcomes.
ST enzyme activity pH test detn risk obstetric gynecol
IT Body fluid
Computer program
Human

Test kits
pH
(enzyme activities and pH tests for determination of risk of obstetric and gynecol. complications in samples of body fluids of women)
IT Medicine
(gynecol.; enzyme activities and pH tests for determination of risk of obstetric and gynecol. complications in samples of body fluids of women)
IT Medicine
(obstetrics; enzyme activities and pH tests for determination of risk of obstetric and gynecol. complications in samples of body fluids of women)
IT **9001-67-6, Sialidase 9025-32-5,**
Prolidase
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(enzyme activities and pH tests for determination of risk of obstetric and gynecol. complications in samples of body fluids of women)
IT 3304-59-4 3326-64-5 7369-91-7, L-Proline-p-nitroanilide 16037-15-3, L-Proline-β-naphthylamide 24751-40-4 26112-88-9 76204-02-9 86925-99-7 94720-65-7 96643-94-6 153248-52-3
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(enzyme activities and pH tests for determination of risk of obstetric and gynecol. complications in samples of body fluids of women)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Cauci, S; WO--02065122 A 2002 HCAPLUS
(2) Cauci, S; WO--02065130 A 2002 HCAPLUS
(3) Cauci, S; JOURNAL OF CLINICAL MICROBIOLOGY 2003, V41(1), P435 HCAPLUS
(4) Cauci, S; JOURNAL OF INFECTIOUS DISEASES 1998, V178(6), P1698 HCAPLUS

L19 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:637929 HCAPLUS
DN 137:167678
ED Entered STN: 23 Aug 2002
TI Enzymatic test for the determination of the risk of pathologies related to the presence of **sialidase** or **prolidase** activity in women body fluid samples
IN **Cauci, Sabina**
PA **Unibio** S.R.L., Italy
SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM G01N-0033/50
ICS C12Q-0001/34; C12Q-0001/37
CC 14-13 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 1, 7
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO2002065122	A1	20020822	2001WO-IT00069	20010215
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP---1360484	A1	20031112	2001EP-0912101	20010215
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN---1503908	A	20040609	2001CN-0822652	20010215
US2004219617	A1	20041104	2003US-0467357	20031020

PRAI 2001WO-IT00069 W 20010215

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002065122	ICM	G01N-0033/50
	ICS	C12Q-0001/34; C12Q-0001/37
	IPCI	G01N0033-50 [ICM,7]; C12Q0001-34 [ICS,7]; C12Q0001-37 [ICS,7]
	IPCR	C12Q0001-34 [I,A]; C12Q0001-34 [I,C]; C12Q0001-37 [I,A]; C12Q0001-37 [I,C]; G01N0033-50 [I,A]; G01N0033-50 [I,C]
	ECLA	C12Q001/34; C12Q001/37; G01N033/50D4
EP---1360484	IPCI	G01N0033-50 [ICM,7]; C12Q0001-34 [ICS,7]; C12Q0001-37 [ICS,7]
	IPCR	C12Q0001-34 [I,A]; C12Q0001-34 [I,C]; C12Q0001-37 [I,A]; C12Q0001-37 [I,C]; G01N0033-50 [I,A]; G01N0033-50 [I,C]
CN---1503908	IPCI	G01N0033-50 [ICM,7]; C12Q0001-34 [ICS,7]; C12Q0001-37 [ICS,7]
US2004219617	IPCI	G01N0033-554 [ICM,7]; G01N0033-569 [ICS,7]; C12Q0001-26 [ICS,7]
	IPCR	C12Q0001-34 [I,A]; C12Q0001-34 [I,C]; C12Q0001-37 [I,A]; C12Q0001-37 [I,C]; G01N0033-50 [I,A]; G01N0033-50 [I,C]
	NCL	435/007.320
	ECLA	C12Q001/34; C12Q001/37; G01N033/50D4

AB The current invention describes a method for the determination of the risk of pathologies related to the presence of **sialidase** and/or **prolidase** activity in body fluid samples of women, comprising the following steps in order: (a) determination of the levels of **sialidase** and/or **prolidase** activity in said sample of body fluid; (b) comparison of said levels of **sialidase** and/or **prolidase** activity with ranges of prefixed values of said activity; (c) calcn. of the risk factor. This method was particularly efficient in permitting an accurate and reliable evaluation of the risk of pathologies related to the presence of **sialidase** and/or **prolidase** activity in samples of body fluid of women. Consequently, this method gives the physician an efficient tool to decide whether or not to administer a pharmacol. therapy.

ST **sialidase prolidase** detn body fluid risk pathol; pregnancy **sialidase prolidase** body fluid

IT Vagina
(anal. of fluid of; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Infection
(bacterial, vaginosis; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Vagina, disease
(bacterial; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Inflammation
Uterus, disease
(cervicitis; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Inflammation
Uterus, disease
(endometritis; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Acid-base indicators
Body fluid
Diagnosis

Disease, animal
Gardnerella vaginalis
Human
Pregnancy
Risk assessment
Test kits
(enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Fertility disorders
(female, from upper genital tract infections; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Pregnancy
(first trimester; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Fluorescent substances
(fluorogenic substrates; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Surgery
(gynecol., infection after; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Uterus, disease
(infection, post-partum; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Reproductive system, disease
(infection, upper; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Amniotic fluid
(intraamniotic infection; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Parturition
(low weight at; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Body weight
(low, at birth; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT **pH**
(of vaginal fluid sample; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Amnion, disease
(premature rupture; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Parturition
(premature; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Infection
(reproductive system, upper; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Pregnancy
(second trimester; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Abortion

(spontaneous; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Color formers
(substrates; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Human immunodeficiency virus
(susceptibility to sexually or vertically transmitted infection with; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Human papillomavirus
Papillomavirus
(susceptibility to sexually transmitted infection with; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Sexually transmitted diseases
(susceptibility to; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT Infection
(uterine, post-partum; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT **9001-67-6, Sialidase 9025-32-5, Prolidase**
RL: **ANT (Analyte)**; BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT 3304-59-4, N-Benzyloxycarbonyl-L-proline-p-nitrophenyl ester 3326-64-5 7369-91-7, L-Proline-p-nitroanilide 16037-15-3, L-Proline-β-naphthylamide 86925-99-7 94720-65-7 96643-94-6
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**prolidase** reagent; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

IT 24751-40-4 76204-02-9 153248-52-3 157707-92-1
RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**sialidase** reagent; enzymic test for determination of risk of pathol. related to presence of **sialidase** or **prolidase** activity in women body fluid samples)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Briselden, A; JOURNAL OF CLINICAL MICROBIOLOGY 1992, V30(3), P663 HCAPLUS
(2) Corfield, T; WO---0055354 A 2000 HCAPLUS
(3) Ibbex Inc; WO---0024753 A 2000 HCAPLUS
(4) Lawrence, P; US---5571684 A 1996 HCAPLUS
(5) McGregor, J; AMERICAN JOURNAL OF OBSTETRICS & GYNECOLOGY 1994, V170(4), P1048 MEDLINE

L19 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:725795 HCAPLUS
DN 133:263206
ED Entered STN: 13 Oct 2000
TI Method for detecting and assaying exoglycosidase activity
IN Zhu, Alex
PA New York Blood Center, Inc., USA
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent

LA English
IC ICM C12Q-0001/34
ICS C12Q-0001/54; C12Q-0001/00; C12Q-0001/37; G01N-0033/53
CC 7-1 (Enzymes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO2000060111	A1	20001012	2000WO-US09053	20000405
	W: CA, JP, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	US---6171810	B1	20010109	1999US-0287869	19990407
PRAI	1999US-0287869	A	19990407		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000060111	ICM	C12Q-0001/34
	ICS	C12Q-0001/54; C12Q-0001/00; C12Q-0001/37; G01N-0033/53
	IPCI	C12Q0001-34 [ICM,7]; C12Q0001-54 [ICS,7]; C12Q0001-00 [ICS,7]; C12Q0001-37 [ICS,7]; G01N0033-53 [ICS,7]
	IPCR	C12Q0001-34 [I,A]; C12Q0001-34 [I,C]
	ECLA	C12Q001/34
US---6171810	IPCI	C12Q0001-34 [ICM,7]; C12Q0001-54 [ICS,7]; C12Q0001-00 [ICS,7]
	IPCR	C12Q0001-34 [I,A]; C12Q0001-34 [I,C]
	NCL	435/018.000; 435/004.000; 435/014.000; 435/968.000; 536/001.110; 536/123.100; 536/123.130
	ECLA	C12Q001/34

AB A method for detecting and measuring exoglycosidase activity is presented. The method employs derivs. containing the fluorescent group 4-methylumbelliferyl ("4-Mu") at a pH lower than that conventionally employed. While the fluorescence intensity due to the 4-Mu group is considerably diminished at the lower pHs employed, the fluorescent intensity is still sufficient to continuously measure exoglycosidase activity in the activity range commonly assayed. The method is easily adaptable to high throughput enzyme assay systems and automated data anal. method. The method also provides a means to detect alterations in exoglycosidase activity that are independent of expression levels. The figure shows the pH dependence of 4-Mu fluorescence intensity over a pH range between 3 and 10, when measured with an excitation wavelength of 365 nm and an emission wavelength of 440 nm, and at concns. of 1 and 10 nM, wherein (O) corresponds to 1 nm 4-Mu, and (Δ) corresponds to 10 nM 4-Mu.

ST detecting assaying exoglycosidase activity
IT Functional groups
(4-methylumbelliferyl; method for detecting and assaying exoglycosidase activity)
IT Fluorometry
pH
(method for detecting and assaying exoglycosidase activity)
IT Enzymes, biological studies
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(method for detecting and assaying exoglycosidase activity)
IT **9001-67-6, Neuraminidase** 9025-35-8, α-Galactosidase 9037-65-4, α-Fucosidase 9075-63-2, α-N-Acetylgalactosaminidase 52769-51-4, Endoglycosidase 52769-52-5, Exoglycosidase
RL: **ANT (Analyte)**; BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(method for detecting and assaying exoglycosidase activity)
IT 38597-12-5, 4-Methylumbelliferyl-α-D-galactoside 54322-38-2, 4-Methylumbelliferyl-α-L-fucoside 59322-44-0, 4-Methylumbelliferyl-N-acetyl-α-D-neuraminic acid
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(method for detecting and assaying exoglycosidase activity)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Miles; US---3850322 A 1974
(2) Robinson; Clinica Chimica Acta V55, P65 HCAPLUS

=> => b medl
FILE 'MEDLINE' ENTERED AT 17:15:44 ON 02 MAR 2006

FILE LAST UPDATED: 1 MAR 2006 (20060301/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 is now (26 Feb.) available. For details on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>). See also:

http://www.nlm.nih.gov/mesh/
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all l28 tot

L28 ANSWER 1 OF 4 MEDLINE on STN
AN **97436569** MEDLINE
DN PubMed ID: 9292542
TI Presence in human erythrocyte membranes of a novel form of **sialidase** acting optimally at neutral pH.
AU Venerando B; Fiorilli A; Croci G L; Tettamanti G
CS Department of Medical Chemistry and Biochemistry, The Medical School, University of Milan, Italy.
SO Blood, **(1997 Sep 1)** Vol. 90, No. 5, pp. 2047-56.
Journal code: 7603509. ISSN: 0006-4971.
CM Comment in: Blood. 2002 Aug 15;100(4):1511. PubMed ID: 12184275
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 199709
ED Entered STN: 19971013
Last Updated on STN: 19971013
Entered Medline: 19970930
AB The feature of intact human erythrocytes and erythrocyte white ghosts is a unique **sialidase** activity with acidic optimal pH (acidic **sialidase**). The treatment of white ghosts with mildly alkaline isotonic solutions at 37 degrees C, like that used to produce resealed ghosts, is accompanied by the expression, together with the acidic **sialidase**, of a novel **sialidase** with a pH optimum of 7.2 (neutral **sialidase**) that remained masked in the inside-out vesicles prepared from white ghosts. Exhaustive treatment of resealed ghosts with Bacillus Thuringiensis phosphatidylinositol-specific phospholipase C causes an almost complete release of the acidic **sialidase**, with the neutral enzyme remaining totally unaffected. The treatment of resealed ghosts with 1.2% Triton X-100 resulted in the solubilization of only the neutral **sialidase**, whereas 3.6% octylglucoside also solubilized the acidic **sialidase**. The neutral enzyme affected not only the artificial substrate but also any

sialoderivatives of a ganglioside, glycoprotein, and oligosaccharide nature; the acidic enzyme did not affect sialoglycoproteins. Erythrocyte endogenous gangliosides were hydrolyzed by both **sialidases**, whereas the endogenous sialoglycoproteins responded to only the neutral enzyme. It was definitely proved that the acidic **sialidase** is located on the outer erythrocyte membrane surface, so presumably the neutral enzyme has the same location. It could be that the newly discovered neutral **sialidase** has a physiologic role in the releasing of sialic acid from erythrocytes during the erythrocyte aging process, leading to eventual phagocytosis by macrophages.

CT Cell Aging
***Erythrocyte Membrane: EN, enzymology**
Humans
Hydrogen-Ion Concentration
***Neuraminidase: AN, analysis**
Neuraminidase: CH, chemistry
Neuraminidase: ME, metabolism
Research Support, Non-U.S. Gov't

CN EC 3.2.1.18 (**Neuraminidase**)

L28 ANSWER 2 OF 4 MEDLINE on STN
AN **75191973** MEDLINE
DN PubMed ID: 238036
TI Preparation of a glycoprotein fraction from pooled human plasma and its evaluation as a substrate for the assay of Clostridium welchii (C. perfringens) **neuraminidase.**
AU Fraser A G; Smith J K
SO Journal of medical microbiology, **(1975 May)** Vol. 8, No. 2, pp. 235-49.
Journal code: 0224131. ISSN: 0022-2615.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 197509
ED Entered STN: 19900310
Last Updated on STN: 19970203
Entered Medline: 19750924
AB A glycoprotein fraction (fraction VII) suitable for use as a substrate in assays of microbial **neuraminidase** was prepared from pooled human plasma. It is pasteurised during preparation to eliminate the risk of transmission of serum hepatitis. This results in polymerisation of some of the gamma1-acid glycoprotein, but fraction VII is shown to be an excellent substrate for the **neuraminidase** of Clostridium welchii (C. perfringens). A sensitive assay procedure is described. A number of factors may interfere with the measurement of NANA released by the action of microbial **neuraminidase** and procedures are described for evaluation of this problem. Fraction VII is easy to prepare, cheap and available in standard form in large amounts (inquiries should be addressed to J. K. S.); it is recommended for routine use as a convenient substrate for **neuraminidase** assays.
CT *Clostridium perfringens: EN, enzymology
Culture Media
Dialysis
Dose-Response Relationship, Drug
Glycoproteins: AN, analysis
***Glycoproteins: BL, blood**
Glycoproteins: ME, metabolism
Humans
Hydrogen-Ion Concentration
Kinetics
***Neuraminidase: AN, analysis**
Neuraminidase: ME, metabolism
Sialic Acids: ME, metabolism
CN 0 (Culture Media); 0 (Glycoproteins); 0 (Sialic Acids); EC 3.2.1.18 (**Neuraminidase**)

L28 ANSWER 3 OF 4 MEDLINE on STN
AN **74306651** MEDLINE
DN PubMed ID: 4137161
TI Red cell hydrolases. 3. **Neuraminidase** activity in isolated human erythrocyte plasma membranes.
AU Bosmann H B
SO Vox sanguinis, **(1974)** Vol. 26, No. 6, pp. 497-512.
Journal code: 0413606. ISSN: 0042-9007.
CY Switzerland
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 197410
ED Entered STN: 19900310
Last Updated on STN: 19900310
Entered Medline: 19741017
CT Check Tags: Male
Alpha-Globulins: ME, metabolism
Blood Protein Electrophoresis
Blood Proteins: AN, analysis
Borohydrides: ME, metabolism
Cell Membrane: EN, enzymology
Electrophoresis, Polyacrylamide Gel
Erythrocytes: DE, drug effects
***Erythrocytes: EN, enzymology**
Fetal Proteins: ME, metabolism
Humans
Hydrogen-Ion Concentration
***Neuraminidase: ME, metabolism**
Neuraminidase: PD, pharmacology
Potassium
Sodium Dodecyl Sulfate
Surface-Active Agents
Temperature
Tritium
RN 10028-17-8 (Tritium); 151-21-3 (Sodium Dodecyl Sulfate); 7440-09-7 (Potassium)
CN 0 (Alpha-Globulins); 0 (Blood Proteins); 0 (Borohydrides); 0 (Fetal Proteins); 0 (Surface-Active Agents); EC 3.2.1.18 (**Neuraminidase**)

L28 ANSWER 4 OF 4 MEDLINE on STN
AN **72066676** MEDLINE
DN PubMed ID: 5128828
TI **Neuraminidase** activity in human leukocytes.
AU Yeh A K; Tulsiani D R; Carubelli R
SO The Journal of laboratory and clinical medicine, **(1971 Nov)** Vol. 78, No. 5, pp. 771-8.
Journal code: 0375375. ISSN: 0022-2143.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 197202
ED Entered STN: 19900310
Last Updated on STN: 19970203
Entered Medline: 19720223
CT Bile Acids and Salts
Calcium: PD, pharmacology
Chlorides: PD, pharmacology
Copper: PD, pharmacology
Freezing
Humans
Hydrogen-Ion Concentration
Hydrolysis

```
      Ions
      Kinetics
        Leukocytes: DE, drug effects
       *Leukocytes: EN, enzymology
      Magnesium: PD, pharmacology
      Mercury: PD, pharmacology
       *Neuraminidase: AN, analysis
      Refrigeration
      Surface-Active Agents: PD, pharmacology
      Zinc: PD, pharmacology
RN    7439-95-4 (Magnesium); 7439-97-6 (Mercury); 7440-50-8 (Copper); 7440-66-6
      (Zinc); 7440-70-2 (Calcium)
CN    0 (Bile Acids and Salts); 0 (Chlorides); 0 (Ions); 0 (Surface-Active
      Agents); EC 3.2.1.18 (Neuraminidase)


=> => d his

     (FILE 'HOME' ENTERED AT 16:43:23 ON 02 MAR 2006)

     FILE 'HCAPLUS' ENTERED AT 16:43:35 ON 02 MAR 2006
L1            1 US2005095660/PN OR US2003-698795#/AP,PRN
                E CAUCI S/AU
L2           25 E3-4
L3            3 UNIBIO/CS,PA

     FILE 'REGISTRY' ENTERED AT 16:45:29 ON 02 MAR 2006

     FILE 'HCAPLUS' ENTERED AT 16:45:32 ON 02 MAR 2006
L4              TRA L1 1- RN :      13 TERMS

     FILE 'REGISTRY' ENTERED AT 16:45:32 ON 02 MAR 2006
L5           13 SEA L4
                SEL RN 9-10
L6            2 E1-2 AND L5

     FILE 'HCAPLUS' ENTERED AT 16:50:16 ON 02 MAR 2006
L7         5992 L6
L8          549 DIPEPTIDASE (1A)PROLINE OR PROLIDASE OR E C ()(3 4 13 9 OR 3 4
L9        13682 NEURAMINIDASE OR ACETYLNEURAMINIDASE? OR ARYLNEURAMINIDASE? OR
L10         244 L7-9 (L)ANT/RL
L11           2 L10 AND L1-3
L12         242 L10 NOT L11
                E PH/CT
L13       36489 E3-4
                E E3+ALL
L14       50840 E7+OLD,NT
L15           2 L12 AND L13-14
L16           4 L11,L15
L17           2 L16 AND L1-3
L18           4 L16 AND L7-15
L19           4 L17-18

     FILE 'MEDLINE' ENTERED AT 17:01:09 ON 02 MAR 2006
L20       15221 L7-9
                E PH/CT
                E E3+ALL
                E E2+ALL
L21      197732 E5+NT
L22        1009 L20 AND L21
                E BODY FLUID/CT
                E E3+ALL
                E E2+ALL
L23         270 E3+NT AND L22
L24         268 L23 AND PY<=2003
                E NEURAMINIDASE/CT
```

```
                E E3+ALL
L25          554 E6 (L)AN/CT
                E SIALIDASE/CT
                E E3+ALL
                E PROLIDASE/CT
L26         4588 L20 AND AN/CT
L27           83 L24 AND L25-26
                SEL AN 4 48 55 71
L28            4 L27 AND E1-4

     FILE 'EMBASE' ENTERED AT 17:15:57 ON 02 MAR 2006
L29        12036 L7-9
                E SIALIDASE/CT
                E E3+ALL
L30         5690 E1
                E PROLIDASE/CT
                E E3+ALL
                E E2+ALL
L31          309 E1
                E PH/CT
                E E3+ALL
L32          159 E5+NT AND L29-31
                E BODY FLUID/CT
                E E3+ALL
L33           28 E3+NT AND L32

     FILE 'HCAPLUS' ENTERED AT 17:29:12 ON 02 MAR 2006
L34        14222 L8-9
                SAV TEM L34 GIT795F0/A

     FILE 'REGISTRY' ENTERED AT 17:30:34 ON 02 MAR 2006
                SAV TEM GIT795F1/A L6

=> b embase
FILE 'EMBASE' ENTERED AT 17:59:33 ON 02 MAR 2006
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 FILE COVERS 1974 TO 24 Feb 2006 (20060224/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d all l40 tot

L40  ANSWER 1 OF 1  EMBASE  COPYRIGHT (c) 2006 Elsevier B.V. All rights
     reserved on STN
AN   2002161524  EMBASE
TI   Different behavior of ghost-linked acidic and neutral sialidases
     during human erythrocyte ageing.
AU   Tringali C.; Fiorilli A.; Venerando B.; Tettamanti G.
CS   Prof. G. Tettamanti, Department of Medical Chemistry, Medical School,
     University of Milan, via Fratelli Cervi 93, 20090 Segrate (Milan), Italy.
     guido.tettamanti@unimi.it
SO   Glycoconjugate Journal, (2001) Vol. 18, No. 5, pp. 407-418. .
     Refs: 65
     ISSN: 0282-0080  CODEN: GLJOEW
CY   Netherlands
DT   Journal; Article
FS   025     Hematology
     029     Clinical Biochemistry
LA   English
SL   English
ED   Entered STN: 20020523
     Last Updated on STN: 20020523
```

AB Acidic and neutral **sialidases** (pH optimum 4.7 and 7.2, respectively) were assayed on human circulating erythrocytes during ageing. The assays were performed on intact erythrocytes and resealed erythrocyte ghost membranes. From young to senescent erythrocytes the acidic **sialidase** featured a 2.7-fold and 2.5-fold decrease in specific activity when measured on intact cells or resealed ghost membranes, whereas the neutral **sialidase** a 5-fold and 7-fold increase, respectively. The Ca(2+)-loading procedure was employed to mimic the vesiculation process occurring during erythrocyte ageing. Under these conditions the released vesicles displayed an elevated content of acidic **sialidase**, almost completely linked through a glycan phosphoinositide (GPI) anchor but no neutral **sialidase** activity, that was completely retained by remnant erythrocytes together with almost all the starting content of sialoglycoconjugates. The loss with vesiculation of acidic **sialidase** with a concomitant relative increase of neutral **sialidase** was more marked in young than senescent erythrocytes. The data presented suggest that during ageing erythrocytes loose acidic **sialidase**, and get enriched in the neutral enzyme, the vesiculation process, possibly involving GPI-anchors-rich membrane microdomains, being likely responsible for these changes. The enhanced neutral **sialidase** activity might account for the sialic acid loss occurring during erythrocyte ageing.

CT Medical Descriptors:
*erythrocyte lifespan
***erythrocyte ghost**
enzyme activity
pH
membrane vesicle
erythrocyte membrane
density gradient centrifugation
human
male
female
controlled study
human cell
adult
article
priority journal
Drug Descriptors:
***sialidase: EC, endogenous compound**
glycan
phosphatidylinositide
glycoconjugate
calcium ion
ganglioside
sialic acid

RN (**sialidase**) **9001-67-6**; (calcium ion) 14127-61-8

=> b biosis
FILE 'BIOSIS' ENTERED AT 17:59:40 ON 02 MAR 2006
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 1 March 2006 (20060301/ED)

=> d all l38 tot

L38 ANSWER 1 OF 1 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 2005:159180 BIOSIS
DN PREV200500166039
TI Combination of vaginal **pH** with vaginal **sialidase** and

prolidase activities for prediction of low birth weight and preterm birth.

AU **Cauci, Sabina** [Reprint Author]; McGregor, James; Thorsen, Poul; Grove, Jakob; Guaschino, Secondo
CS Dipartimento Sci and Tecnol Biomed, Fac Med and Chirurg, Piazzale Kolbe 4, I-33100, Udine, Italy
scauci@mail.dstb.uniud.it

SO American Journal of Obstetrics and Gynecology, (February 2005) Vol. 192, No. 2, pp. 489-496, 478. print.
CODEN: AJOGAH. ISSN: 0002-9378.
DT Article
LA English
ED Entered STN: 27 Apr 2005
Last Updated on STN: 27 Apr 2005

AB Objective: The purpose of this study was to assess if easy to measure vaginal fluid biomarkers are predictive for low birth weight (LBW, < 2500 g), very LBW (VLBW, <1500 g), spontaneous preterm at <37 weeks' gestation, and total preterm, deliveries (at <37, <35, <32 weeks' gestation). Study design: Low and high cutoffs for vaginal fluid **pH**, **sialidase**, and **prolidase** activities were examined in a nested case-control study of 579 Danish women (from a study population of 2846 women) with samples collected at mean 17 weeks' gestation. One hundred sixteen LBW (17 VLBW), 117 preterm deliveries (85 spontaneous), and 418 normal term deliveries were analyzed. Results: Vaginal **pH** gtoreq4.7 or **pH** gtoreq5 by itself was not associated with LBW or prematurity. Conversely, combination of **pH** 5 and high **sialidase** activity demonstrated OR 17 (CI 1.8150) for LBW OR 31 (CI 1.8-516) for VLBW; along with OR 18 (CI 1.6-204) for preterm at <35 weeks'; and OR 31 (Cl 1.9-542) for preterm at <32 weeks' gestation. The combination of **pH** gtoreq5 and high **prolidase** activity demonstrated OR 13 (CI 1.3-122) for LBW; OR 33 (CI 2.0-553) for VLBW, as well as OR 9.2 (Cl 6.6-150) for preterm at <35 weeks'; and OR 35 (Cl 2.0-586) for preterm at <32 weeks' gestation. In this population, no woman having high **sialidase** and high **prolidase** activity had a term birth, or a baby weighting 2500 g at birth. Conclusion: In this Danish population, inid-gestation findings of vaginal fluid elevated **pH** with **sialidase** and/or **prolidase** were associated with LBW, VLBW, and early preterm at <35 or <32 weeks' gestation.

CC Clinical biochemistry - General methods and applications 10006
Enzymes - General and comparative studies: coenzymes 10802
Reproductive system - Physiology and biochemistry 16504
Reproductive system - Pathology 16506
Pediatrics 25000

IT Major Concepts
Clinical Chemistry (Allied Medical Sciences); Gynecology (Human Medicine, Medical Sciences); Obstetrics (Human Medicine, Medical Sciences)

IT Parts, Structures, & Systems of Organisms
vaginal fluid: reproductive system

IT Diseases
preterm birth: reproductive system disease/female
Labor, Premature (MeSH)

IT Chemicals & Biochemicals
prolidase [EC 3.4.13.9]; **sialidase**

IT Miscellaneous Descriptors
low birth weight; vaginal **pH**

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common): adolescent, adult, Danish, female
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN **9025-32-5 (prolidase)**
9025-32-5 (EC 3.4.13.9)
9001-67-6 (sialidase)

=> d his l35-

FILE 'BIOSIS' ENTERED AT 17:56:48 ON 02 MAR 2006
L35 14273 L7-9
E CAUCI S/AU
L36 36 E3-4
L37 11 L35 AND L36
L38 1 L37 AND (PH OR HYDROGEN (1W)ION)
L39 1061 L35 AND (PH OR HYDROGEN (1W)ION)

FILE 'EMBASE' ENTERED AT 17:59:15 ON 02 MAR 2006
SEL AN 13 L33
L40 1 E1 AND L33

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=> b biosis
FILE 'BIOSIS' ENTERED AT 08:17:26 ON 03 MAR 2006
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 1 March 2006 (20060301/ED)


=> d all l16 tot

L16  ANSWER 1 OF 1  BIOSIS  COPYRIGHT (c) 2006 The Thomson Corporation  on STN
AN   1985:238953  BIOSIS
DN   PREV198579018949; BA79:18949
TI   STUDIES ON PRENATAL DIAGNOSIS OF HEREDITARY LYSOSOMAL STORAGE DISEASES.
AU   WAGATSUMA K [Reprint author]
CS   DEP PEDIATR, SAPPORO MED COLL, JPN
SO   Sapporo Medical Journal, (1984) Vol. 53, No. 4, pp. 373-394.
     CODEN: SIZSAR. ISSN: 0036-472X.
DT   Article
FS   BA
LA   JAPANESE
AB   Assay conditions were studied for 11 lysosomal enzymes
     (β-D-galactosidase, α-D-mannosidase, β-hexosaminidase,
     β-D-glucuronidase, α-D-galactosidase, α-D-glucosidase,
     arylsulfatase, β-D-glucosidase, α-L-fucosidase, α-D-
     neuraminidase and α-L-iduronidase) in cultured amniotic
     fluid cells(CAFC), cultured skin fibroblasts(CSF) and cultured embryonic
     lung fibroblasts(CELF), and the specific activities of the enzymes were
     compared among these cultured cells.  In addition, changes in these
     enzymes from the 3 cell types were investigated between 4-6 earlier
     passages and 24-26 later passages, with regard to their specific
     activities, Km values and pH profiles.  The following results
     were obtained.  All enzymes assayed for the 4-6 earlier passages
     had the same Km values for CAFC, CSF and CELF.  With the exception of
     α-D- neuraminidase and α-L-fucosidase, the enzymes
     also had the same pH optima.  The specific activities of
     β-D-glucuronidase, arylsulfatase, α-D-glucosidase and
     β-D-glucosidase significantly increased with development.  All
     enzymes assayed in the 3 cell types were also unchanged with
     cell aging, with regard to their Km values.  With the exception of
     α-D-glucosidase, α-D-  neuraminidase and
     α-L-fucosidase, the enzymes were also unchanged in their points of
     pH optima.  No changes were observed with development in the
     specific activities of β-D-glucosidase, β-D-glucuronidase,
     α-D-galactosidase, α-D-mannosidase, β-D-galactosidase,
     β-hexosaminidase and α-D-  neuraminidase from the 3
     cell types.  Variations were observed between the levels of these enzymes
     in the 3 cell types with cell aging, such as increases in some, decreases
     in others and no change in still others.  Especially, the specific
     activities of α-D-mannosidase in CAFC and CSF and those of
     α-L-fucosidase in CELF markedly decreased with cell aging.  Control
     aminiotic fluid cell cultures should be derived from cultures for the same
     serial of time as those from a pregnancy at risk for hereditary
     lysosomal storage diseases, because the use of later subcultures or other
     fibroblast cultures as control materials may lead to erroneous
     interpretations.
CC   Genetics - Human   03508
     Clinical biochemistry - General methods and applications   10006
     Biochemistry studies - Proteins, peptides and amino acids   10064
     Biochemistry studies - Carbohydrates   10068
     Enzymes - Methods   10804
     Enzymes - Physiological studies   10808
     Pathology - Diagnostic   12504
```

Metabolism - Carbohydrates 13004
Metabolism - Metabolic disorders 13020
Blood - Other body fluids 15010
Respiratory system - Physiology and biochemistry 16004
Reproductive system - General and methods 16501
Bones, joints, fasciae, connective and adipose tissue - Physiology and biochemistry 18004
Development and Embryology - Pathology 25503

IT Major Concepts
Clinical Chemistry (Allied Medical Sciences); Development; Enzymology (Biochemistry and Molecular Biophysics); Genetics; Metabolism; Pathology; Reproductive System (Reproduction)

IT Miscellaneous Descriptors
HUMAN CULTURED AMNIOTIC FLUID CELLS SKIN FIBROBLASTS EMBRYONIC LUNG FIBROBLASTS BETA-D GALACTOSIDASE ALPHA-D MANNOSIDASE BETA HEXOSAMINIDASE BETA-D GLUCURONIDASE ALPHA-D GALACTOSIDASE ALPHA-D GLUCOSIDASE ARYLSULFATASE BETA-D GLUCOSIDASE ALPHA-L FUCOSIDASE ALPHA-D **NEURAMINIDASE** ALPHA-L IDURONIDASE

ORGN Classifier
Hominidae 86215

Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia

Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 9025-42-7 (ALPHA-D-MANNOSIDASE)
9012-33-3 (BETA-HEXOSAMINIDASE)
9001-45-0 (BETA-D-GLUCURONIDASE)
9025-35-8 (ALPHA-D-GALACTOSIDASE)
9001-42-7 (ALPHA-D-GLUCOSIDASE)
9016-17-5 (ARYLSULFATASE)
9001-22-3 (BETA-D-GLUCOSIDASE)
9037-65-4 (ALPHA-L-FUCOSIDASE)
9001-67-6 (NEURAMINIDASE)
9073-56-7 (ALPHA-L-IDURONIDASE)
9027-52-5 (BETA HEXOSAMINIDASE)

=> => d all abex tech l24 tot

L24 ANSWER 1 OF 1 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
AN 2005-335264 [35] WPIX
DNN N2005-274187 DNC C2005-104144
TI Method of selecting population of women having risk of developing obstetric or gynecologic pathologies e.g. urologic disorders involves determining levels of **sialidase** and/or **prolidase** activity and pH value of body fluid sample.
DC B04 D16 S03
IN **CAUCI, S**
PA (UNIS) UNIBIOS SRL
CYC 36
PI EP-----1528396 A1 20050504 (200535)* EN 19 G01N-033-569
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR
CA-----2485854 A1 20050430 (200535) EN C12Q-001-37 <--
US--2005095660 A1 20050505 (200535) C12Q-001-34
CN-----1637150 A 20050713 (200576) C12Q-001-25
ADT EP-----1528396 A1 2004EP-0022918 20040927; CA-----2485854 A1 2004CA-2485854 20041025; US--2005095660 A1 2003US-0698795 20031031; CN-----1637150 A 2004CN-0080999 20041026
PRAI 2003US-0698795 20031031
IC ICM C12Q-001-25; C12Q-001-34; **C12Q-001-37**; G01N-033-569
ICS **G01N-033-48**; **G01N-033-50**; **G01N-033-52**; **G01N-033-84**; G06F-017-60
AB EP 1528396 A UPAB: 20050603
NOVELTY - Method of selecting population of women having a risk of developing obstetric or gynecologic pathologies involves determining

levels of **sialidase** and/or **prolidase** activity in body fluid sample (f1) by established procedures; determining pH value of (f1); and selecting samples having a **sialidase** value of at least 5.0 nmol of methoxyphenol and/or a **prolidase** level of at least 1500 mOD for **prolidase** and a pH of at least 5.0.

DETAILED DESCRIPTION - Method of selecting particular population of women having risk of developing obstetric or gynecologic pathologies as indicated as OR value of at least 5.5 involves determining levels of **sialidase** by procedure described in Cauci et al. Am J Obstet Gynecol 1998; 178; 511-5 and/or **prolidase** activity by procedure described in Cauci et al. J Infect Dis 1998; 178; 1698-706, and pH value of the body fluid samples; and selecting the samples having a **sialidase** value of at least 5.0 nmol of methoxyphenol and/or a **prolidase** level of at least 1500 mOD for **prolidase** and pH of at least 5.0.

INDEPENDENT CLAIMS are included for the following:

(1) selecting (M1) a particular population of women having a risk of developing, VLBW, delivery at less than 37 weeks gestation (preferably less than 35 weeks gestation, especially less than 32 weeks gestation) involving: determining levels of **sialidase** as above, and pH value of the body fluid samples; and selecting the samples having a **sialidase** value of at least 0.19 nmol of methoxyphenol and/or a **prolidase** level value of above 22 mOD for **prolidase** and pH of at least 5.0; and

(2) a kit comprising a **sialidase** and/or **prolidase** activity assay in solution that includes a colorless substrate solution in which to inoculate the biologic sample, a developing solution in a container equipped with dispenser, a reference scale to correlate the level of **sialidase** activity of at least 0.19 nmol of methoxyphenol and/or **prolidase** level of at least 22 mOD with the intensity of the developed color, a pH indicator, a reference scale to correlate the pH detected by the indicator with a pH at least 5.0, and an illustrative leaflet containing the instructions for the proper use of the kit.

USE - For the determination of the risk of obstetric and gynecologic complications (e.g. low birth weight (LBW), very low birth weight (VLBW), preterm delivery (delivery at less than 37 weeks gestation, PTD), early preterm delivery (delivery at less than 35 or 32 weeks gestation, EPTD), premature rupture of membranes, preterm premature rupture of membranes, intraamniotic infections, spontaneous abortion, endometritis, obstetric surgery infections, post-partum or post-gynecologic surgery infections, pelvic surgery infections, upper genital tract infections which cause infertility, pelvic inflammatory disease (PID), annexitis, cervicitis, sexually transmitted diseases and infections, malignancies of the urogenital tract) in samples of body fluids such as vaginal fluid (claimed).

ADVANTAGE - The identification of a threshold of pH greater than or equal to 5.0 in combination with a high **sialidase** and/or **prolidase** activity in body fluid samples is a crucial issue to select woman who have a risk of developing the described pathologies which is found to be 20-30 fold higher than normal woman. The prior art measured pH equal or higher than 4.7. Therefore, a very important selection among women who can develop the pathologies can be put at the attention of the physician. The method is able to predict if the risk is within the 37 weeks gestation or within 35 or even within 32 weeks gestation. It is able to predict the risk of birth of an infant of less than 1500 g, which is associated with severe morbidity and high rate of newborn death; it allows to predict the very high risk even from non-pregnant women just by detecting the **sialidase** and/or **prolidase** activity and pH value; it identifies population of women having a high risk of developing obstetric and gynecologic complications at an early stage of gestation in order to furnish the physician with a valuable tool to decide whether or not to administer a pharmacological therapy. The leaflet correlates the enzymatic activity with the pH value in order to evaluate the risk of pathologies as absent or low (-), medium (+), high (++) or very high (+++).

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     Dwg.0/0
FS   CPI EPI
FA   AB; DCN
MC   CPI: B04-B04L; B04-L05; B06-A01; B06-D01; B07-D03; B10-A17; B11-C07B1;
          B11-C07B3; B12-K04A; D05-H09
     EPI: S03-E09E; S03-E14H2; S03-F10
TECH              UPTX: 20050603
     TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Method: (M1) involves
     selecting the samples having a pH of at least 5, sialidase value
     of above 0.19 nmol, 0.38 nmol or 2.50 nmol of methoxyphenol and
     prolidase level of above 22 mOD, 44 mOD, 1000 mOD, 1500 mOD or
     2000 mOD. The OR value is calculated and corrected by a standard factor by
     the SPSS computer statistic program. After the determination of levels of
     sialidase and/or prolidase activity, phase a score of
     the levels of sialidase and/or prolidase activity is
     determined. The pH of the sample is 5 - 7 (preferably 5 - 6, especially 5
     - 5.5). The method is carried out in samples of body fluid of pregnant
     women (preferably women in the first or second trimester of gestation,
     especially 6 - 24th full week of gestation) or non-pregnant women.
     Preferred Kit: The pH indicator comprises a revealing paper with a turning
     interval of 5 - 7 (preferably 5 - 6, especially 5 - 5.5). The reference
     scale for the sialidase and/or prolidase activity
     reports standard values associated with enzyme detecting colors. The
     reference scale for pH value associates the turning interval with a
     particular color intensity of the same color. The kit includes a test on
     solid support (preferably on reactive strip or platform test) for the
     determination of the sialidase and/or prolidase
     activity. For the determination of sialidase activity, the kit
     comprises a chromogenic or fluorogenic substrate selected from
     2-(3'-methoxyphenyl)-N-acetyl-D-neuraminic acid, 2-O-(o-nitrophenyl)-alpha-
     D-N-acetyl neuraminic acid, 2'-(4-methylumbelliferyl)-alpha-D-N-acetyl
     neuraminic acid sodium salt or 5-bromo-4-chloro-3-indolyl-alpha-D-N-acetyl
     neuraminic acid. For the determination of prolidase activity,
     the chromogenic or fluorogenic substrate selected is L-proline-para-
     nitroanilide, L-proline-beta-naphthylamide, N-benzyloxycarbonyl-L-prolyl-
     beta-naphthylamide, N-benzyloxycarbonyl-L-proline-para-nitrophenyl ester,
     hydroxy-L-prolyl-beta-naphthylamide, L-proline-7-amido-4-methyl-coumarin
     or L-proline-4-methoxy-beta-naphthylamide.


=> d his

     (FILE 'HOME' ENTERED AT 07:36:41 ON 03 MAR 2006)

     FILE 'REGISTRY' ENTERED AT 07:37:55 ON 03 MAR 2006
                ACT GIT795F1/A
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L1   (         1)SEA FILE=HCAPLUS ABB=ON  PLU=ON  US2005095660/PN OR US2003-6987
L2               SEL  PLU=ON  L1 1- RN :      13 TERMS
L3   (        13)SEA FILE=REGISTRY ABB=ON  PLU=ON  L2
L4             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  (9001-67-6/BI OR 9025-32-5/BI
                ---------

     FILE 'HCAPLUS' ENTERED AT 07:38:09 ON 03 MAR 2006
                ACT GIT795F0/A
                ---------
L5   (       549)SEA FILE=HCAPLUS ABB=ON  PLU=ON  DIPEPTIDASE (1A)PROLINE OR PRO
L6   (     13682)SEA FILE=HCAPLUS ABB=ON  PLU=ON  NEURAMINIDASE OR ACETYLNEURAMI
L7         14222 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L5 OR L6)
                ---------

     FILE 'BIOSIS' ENTERED AT 07:38:36 ON 03 MAR 2006
L8         14273 L4,L7
L9          1061 L8 AND (PH OR HYDROGEN (1W)ION)
L10          171 L9 AND ?ASSAY?
L11          165 L10 AND PY<=2003
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                E BODY FLUIDS/CT
L12             0 E3 AND L11
L13             0 E3 AND L10
L14             1 L11 AND BODY (1W)FLUID
L15             6 L11 AND (GYNECOL? OR PREGNAN? OR OBSTET? OR VAGIN?)
                  SEL AN 3
L16             1 L15 AND E1

     FILE 'WPIX' ENTERED AT 08:17:48 ON 03 MAR 2006
L17          2187 C12Q001-37/IPC
L18           682 L7
                  E CAUCI S/AU
L19             3 E3
L20         54632 G01N033-84/IPC OR (N421 OR N422 OR N425)/M0,M1,M2,M3,M4,M5,M6
L21        232874 (G01N033-48? OR G01N033-49? OR G01N033-50 OR G01N033-52 OR G01N
L22            53 L17-18 AND L20
L23            27 L22 AND L21
L24             1 L23 AND L19
L25            26 L23 NOT L24

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